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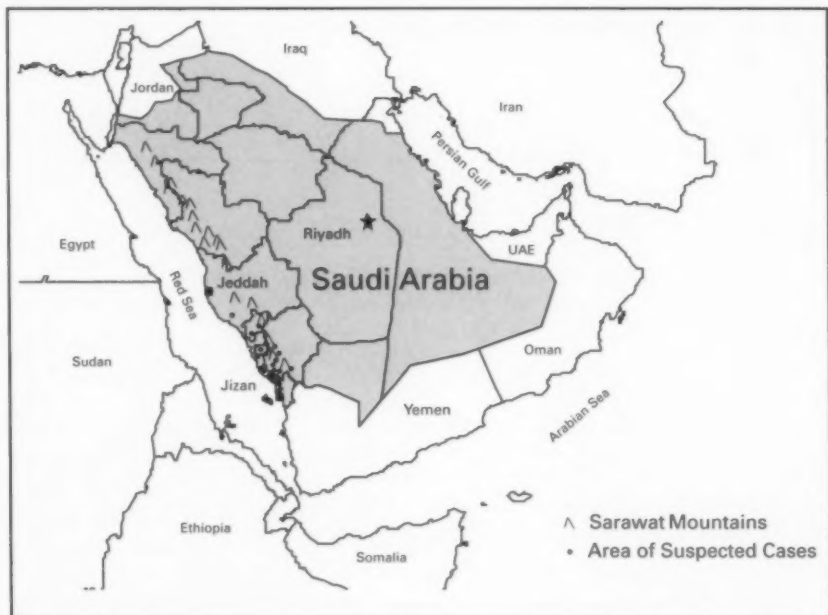
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Outbreak of Rift Valley Fever — Saudi Arabia, August–October, 2000

On September 10, 2000, the Ministry of Health (MOH), Kingdom of Saudi Arabia, and subsequently the Ministry of Health of Yemen received reports of unexplained hemorrhagic fever in humans and associated animal deaths from the southwestern border of Saudi Arabia and Yemen. Signs and symptoms of ill persons included low grade fever, abdominal pain, vomiting, diarrhea, jaundice with liver and renal dysfunction often progressing to disseminated intravascular coagulation, hepatorenal syndrome, and death. On September 15, using ELISA (antigen detection and IgM), polymerase chain reaction, virus isolation, and immunohistochemistry, CDC confirmed the diagnosis of Rift Valley fever (RVF) in all four serum samples submitted from Saudi Arabia. This report summarizes the preliminary results of the collaborative epidemiologic investigation performed by the Saudi Arabian MOH, CDC, and the National Institute of Virology, South Africa, of the first confirmed occurrence of RVF outside Africa.

As of October 9 in Saudi Arabia, 316 persons with suspected severe RVF* have been reported from primary health-care centers and hospitals. All suspected severe cases have been hospitalized for care and management. Of the 316 case-patients, 245 (78%) were male; the median age was 46 years (range: 11–95 years); 15 (5%) were aged <16 years; 253 (80%) were Saudi citizens and 63 (20%) were Yemen citizens. At least 66 (21%) patients have died. Suspected severe case-patients investigated to date resided in or visited the floodplains of the wadis (i.e., seasonal riverbeds) that emanate from the foothills of the Sarawat mountains and extend south of Jeddah to the border of Yemen (Figure 1). Of the 316 suspected cases, 304 (96%) have been reported from the southern coastal province of Jizan (1992 population: 860,000) and the contiguous Asir and Al

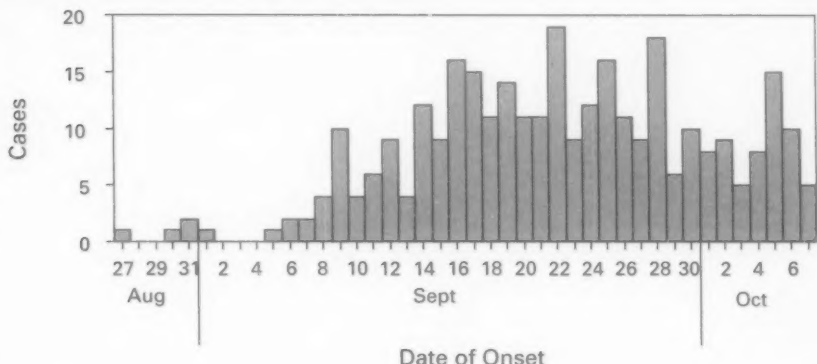
*Screening case definition for RVF: unexplained illness >48 hours in duration associated with three times elevation in transaminases (aspartate aminotransferase, alanine aminotransferase, and gamma glutamyl transpeptidase) or clinical jaundice; or unexplained illness >48 hours in duration associated with abortion or bleeding manifestations (e.g., from puncture sites, ecchymosis, petechiae, purpura, epistaxis, gastrointestinal bleeding, or menorrhagia); or unexplained acute visual loss or scotoma; or unexplained illness >48 hours in duration associated with neurologic manifestations (e.g., vertigo, confusion, disorientation, amnesia, lethargy, hallucination, meningismus, choreiform movements, ataxia, tremor, convulsions, hemiparesis, decerebrate posturing, locked-in syndrome, or coma); or unexplained illness >48 hours in duration associated with fever, diarrhea, nausea, vomiting, or abdominal pain and any one of the following laboratory values: 1) hemoglobin <8 gm/dL; 2) platelets <100,000 mm³ (<10 × 10⁹/L); 3) LDH 2 × upper limit of normal; 4) creatinine >150 mol/L; 5) CPK 2 × upper limit of normal; or unexplained death with history of fever, lethargy, diarrhea, abdominal pain, nausea, vomiting, or headache in the preceding 2 weeks.

*Rift Valley Fever — Continued***FIGURE 1. Area of reported suspected cases of Rift Valley fever — Saudi Arabia, August–October 2000**

Quenfadah health regions. Cases from four other health regions have documented travel to these areas. The onset of the earliest suspected case was August 27 (Figure 2).

The activities of the MOH, Ministry of Agriculture and Water, and Ministry of Municipalities to contain the outbreak included an intensive mosquito-control program; restriction of movement of domestic animals; a comprehensive educational campaign to eliminate contact with sick animals and mosquitoes (including provision of free permethrin-impregnated bednets); encouragement to seek early medical evaluation of persons with febrile illnesses; and information for health-care providers on the clinical presentation and management of suspected cases. Studies are in progress to identify risk factors for infection, severe disease, and mortality. Animal, human, and vector surveillance is being strengthened throughout the country, including establishment of central human and veterinary virology laboratories in Riyadh and Jizan, respectively. A kingdomwide survey among domestic ungulates, primarily sheep and goats, is under way to define the boundaries for a veterinary vaccination program. Additional studies are planned to assess the magnitude of the outbreak, to define infection rates among high-risk groups, such as veterinarians and slaughterhouse workers, and to determine evidence for nosocomial transmission.

Rift Valley Fever — Continued

FIGURE 2. Number of suspected cases of Rift Valley fever under investigation, by date of onset — Saudi Arabia, August–October 2000*

*n=316

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Editorial Note: RVF is a mosquito-borne zoonotic viral disease predominantly causing abortion and deaths of young animals (e.g., sheep and goats) (1). Epizootic and epidemic transmission is associated with periodic heavy rainfall. Human infection is predominately not apparent or is associated with a brief self-limited febrile illness. However, complications such as retinitis, hemorrhagic fever, or encephalitis occur in some patients (approximately 15%, 1%, and 1%, respectively) (1). Transmission is primarily by contact with infected animal body fluids and mosquito bites, although virology laboratory workers also are at risk. Person-to-person transmission has not been reported. The Saudi Arabian MOH is evaluating the feasibility of a randomized, placebo-controlled trial using intravenous ribavirin in patients with suspected severe RVF. Although ribavirin has not been administered to humans with RVF, evidence suggests its efficacy in animal models (2). Intravenous ribavirin has been shown to treat effectively other viral hemorrhagic fevers, including Lassa fever, hemorrhagic fever with renal syndrome, and Crimean-Congo hemorrhagic fever (2).

Rift Valley Fever — Continued

This outbreak on the Arabian Peninsula represents the first cases of RVF outside Africa. The potential of RVF virus to establish transmission and cause disease in new areas first was documented during its emergence in Egypt in 1977; previously, the disease was limited to sub-Saharan Africa. The virus isolated from the blood of the first patients had a RNA sequence similar to the RVF viruses isolated during 1997–1998 East African outbreaks (3). Cross-sectional community surveys for asymptomatic and milder illnesses and laboratory evidence of infection are in progress to assess the magnitude and geographic extent of infection.

References

1. Peters CJ. Emergence of Rift Valley fever. In Saluzzo JF, Dodet B, eds. *Factors in the emergence of arboviruses*, 1997. Paris, France: Elsevier, 253–64.
2. Huggins JW. Prospects for treatment of viral hemorrhagic fevers with ribavirin, a broad-spectrum antiviral drug. *Reviews of Infectious Diseases* 1989;11(suppl 4):S750–S761.
3. CDC. Rift Valley fever—East Africa, 1997–1998. *MMWR* 1998;47:261–4.

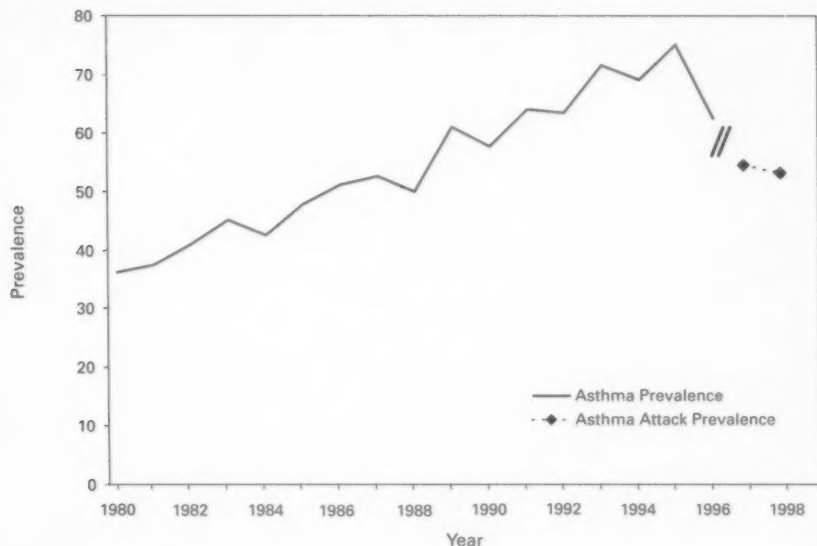
Measuring Childhood Asthma Prevalence Before and After the 1997 Redesign of the National Health Interview Survey — United States

Asthma is the most common chronic disease of childhood and a leading cause of disability among children (1,2). Since 1980, asthma prevalence has increased dramatically in children (3,4). The National Health Interview Survey (NHIS), the principal source of asthma prevalence data for the United States, was redesigned in 1997. This report presents NHIS data from 1980–1998 to examine the effect of the redesign on measuring trends in asthma prevalence overall and among age and racial subgroups of children. The findings indicate that although asthma prevalence estimates for 1997–1998 are lower than those preceding changes in the survey design, estimates after 1997 are not comparable to previous estimates. Additional data are needed to establish a new trend after 1997.

NHIS is an ongoing household survey of a representative sample of the noninstitutionalized civilian U.S. population. For children aged <18 years, a knowledgeable adult family member, usually a parent, acts as a proxy respondent. Before 1997, one sixth of NHIS-sampled households were asked about chronic respiratory conditions, including asthma (approximately 4500 children in most years). Information on asthma was obtained by the question, "During the past 12 months, did anyone in the family have asthma?" Field testing of a redesigned survey began in 1996, resulting in a 40% decrease in the survey sample compared with previous years. Starting in 1997, information about asthma was collected for a randomly selected sample child in every household containing a child (approximately 14,000 children each year). The redesigned NHIS also specifically obtained information on asthma diagnoses by asking "Has a doctor or other health professional ever told you that your child had asthma?" To determine current asthma attack prevalence, persons answering yes were then asked "During the past 12 months, has your child had an episode of asthma or an asthma attack?" National estimates and standard errors were calculated using SUDAAN.

Overall, asthma prevalence among persons aged 0–17 years increased approximately 5% each year during 1980–1995 (Figure 1). The 1996 estimate of 62 per 1000 children (standard error [SE]=4.9) was 17% lower than in 1995 (75 [SE=4.3]). On the basis

Childhood Asthma — Continued

FIGURE 1. Prevalence* of childhood asthma among persons aged 0–17 years, by year — National Health Interview Survey (NHIS), United States, 1980–1998†

* Per 1000 population.

† NHIS was redesigned in 1997, resulting in a discontinuation of the trend.

of the redesigned survey, the 1997 and 1998 prevalence estimates were 54 and 53, respectively, representing the beginning of a new trend.

During 1980–1996, prevalence among black non-Hispanic children was greater than that among either white non-Hispanic or Hispanic children (Table 1). The gap between non-Hispanic black and white children widened progressively, from a 15% higher prevalence among blacks during 1980–1981 to 26% during 1995–1996. In the redesigned survey, when compared with white non-Hispanic children, asthma attack prevalence among black non-Hispanic children was 29% higher in 1997 and 31% higher in 1998. From 1985–1986 to 1995–1996, prevalence among Hispanic children increased rapidly. Compared with non-Hispanic white children, asthma prevalence among Hispanic children was 38% lower during 1985–1986 but 17% greater during 1995–1996. In 1997 and 1998, asthma attack prevalence among Hispanic children was similar to that among non-Hispanic white children. Within the three pediatric age groups, prevalence generally increased during 1980–1996. Prevalence also increased with age; children aged ≥ 5 years had a higher prevalence than younger children. This pattern was similar for asthma attack prevalence in 1997 and 1998, although the difference between children aged 0–4 years and older children was not statistically significant in 1998.

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Childhood Asthma — Continued

TABLE 1. Estimated average annual prevalence* of asthma during the previous 12 months among children aged <18 years, by selected years — National Health Interview Survey (NHIS), United States, 1980–1998

Characteristic	Asthma prevalence				Asthma attack prevalence	
	1980–1981	1985–1986	1990–1991	1995–1996	1997 [†]	1998 [‡]
	% (SE) [†]	% (SE)	% (SE)	% (SE)	% (SE)	% (SE)
Race/Ethnicity						
White, non-Hispanic	36.4 (2.7)	51.0 (4.0)	59.6 (3.6)	65.3 (4.2)	52.2 (2.9)	52.1 (3.0)
Black, non-Hispanic	41.9 (5.1)	59.8 (8.5)	72.6 (7.9)	82.1 (8.3)	67.5 (5.6)	68.1 (6.7)
Hispanic	NA [§]	31.5 (7.2)	51.2 (7.3)	76.1 (6.9)	51.3 (4.3)	47.4 (4.6)
Age (yrs)						
0–4	29.4 (3.3)	31.9 (4.2)	43.0 (4.1)	50.3 (5.2)	41.2 (3.9)	46.5 (4.0)
5–10	49.0 (4.6)	54.5 (5.0)	62.7 (4.7)	74.3 (5.9)	58.5 (4.1)	53.0 (4.0)
11–17	32.1 (3.3)	58.0 (5.1)	71.4 (4.9)	77.4 (5.4)	60.4 (3.8)	58.0 (3.7)
Overall prevalence	36.8 (2.5)	49.4 (3.1)	60.1 (3.0)	68.6 (3.2)	54.4 (2.2)	53.1 (2.3)

* Per 1000 population.

† Standard error.

‡ Data for 1997 and 1998 were affected by a redesign of NHIS.

§ Not available. White and black estimates for 1980–1981 include Hispanic ethnicity.

Editorial Note: Although estimates of asthma prevalence appear lower after 1995 than in earlier years, changes in the number of children surveyed and in the survey design in 1996 and 1997 preclude drawing conclusions about recent changes in childhood asthma. The 1996 survey had a smaller sample size than previous years, resulting in a greater sampling error. The redesigned survey specifically collected information about medical diagnosis of asthma and the frequency of asthma attacks.

The redesigned survey also may have differentially affected measurement of asthma prevalence among subgroups in the pediatric population. Among age subgroups, the pattern of asthma attack prevalence appeared unaffected: in 1997 and 1998, children aged 0–4 years continued to have lower asthma attack prevalence compared with older children. However, among race/ethnicity subgroups, asthma attack prevalence estimates declined more for Hispanic than non-Hispanic children.

Although the redesign of NHIS created a break in the trend of asthma prevalence, the changes will enable researchers and policy makers to better understand national trends in asthma prevalence. In contrast with the previous question, the redesigned survey measures physician-diagnosed asthma and produces a more specific estimate. In addition, estimating asthma attack prevalence is more helpful for planning public health interventions by measuring the population at risk for serious outcomes from asthma, including hospitalization and death.

To promote comparability of surveillance data, the Council of State and Territorial Epidemiologists (CSTE) recommends that a uniform case definition be used by all systems collecting data on self-reported asthma. The 1998 CSTE uniform case definition of self-reported asthma includes a positive response to the survey question, "Did a doctor or other health professional ever tell you (or any household member) that you (they) had asthma?" and a positive response to any one of the following: a) "Do you (or the household member) still have asthma?" b) "Have you (or the household member) taken prescription medications for asthma during the past year?" or c) "Have you (or the household member) had a wheeze episode in the past year?" In addition to the 1997 changes, the 2001 NHIS survey will be modified to adopt a similar case definition by including the question "Do you still have asthma?" Standardized questions for adult asthma prevalence, consistent with the case definition recommended by CSTE, were added to the

Childhood Asthma — Continued

Behavioral Risk Factor Surveillance System (BRFSS) core module in 2000 and standard questions for child prevalence were added as part of a 2001 module. As a result, three comparable asthma questions for children in both the NHIS and the BRFSS surveys will allow comparisons between local and national asthma prevalence estimates in 2001. Improvements in national and state surveillance will help to identify the factors underlying development and exacerbation of asthma and to develop and target more effective treatment and prevention strategies.

References

1. Newacheck PW, Starfield B. Morbidity and use of ambulatory care services among poor and nonpoor children. *Am J Public Health* 1986;76:178-84.
2. CDC. Disabilities among children aged ≤ 17 years—United States, 1991-1992. *MMWR* 1995;44:609-13.
3. Weiss KB, Gergen PJ, Wagener DK. Breathing better or wheezing worse? The changing epidemiology of asthma morbidity and mortality. *Annu Rev Publ Health* 1993;14:491-513.
4. CDC. Surveillance for asthma—United States, 1960-1995. In: *CDC Surveillance Summaries*, April. *MMWR* 1998;47(no. SS-1).

Outbreak of *Escherichia coli* O157:H7 Infection Associated With Eating Fresh Cheese Curds — Wisconsin, June 1998

On June 15, 1998, the Division of Public Health, Wisconsin Department of Health and Family Services, was notified of eight laboratory-confirmed and four suspected *Escherichia coli* O157:H7 infections among west-central Wisconsin residents who became ill during June 8-12. This report summarizes the outbreak investigation, which implicated fresh (held <60 days) cheese curds from a dairy plant as the source of infection.

A primary case was defined as the first laboratory-confirmed case in a household; a secondary case was one that occurred 3-8 days after a primary case in the same household. A matched case-control study was conducted to assess potential sources of infection. For the purposes of the case-control study, a case was defined as culture-confirmed illness among residents of Chippewa and Eau Claire counties with illness onset during June 7-18. For each case-patient, two community controls matched by sex and age group (range: from <10 years within 2 years to ≥ 10 years within 5 years) were interviewed by telephone. Case-patients and controls were interviewed about food exposures and potential risk factors for *E. coli* O157:H7 infection within 7 days before onset of illness.

In response to the case-control study, the Wisconsin Department of Agriculture, Trade, and Consumer Protection visited dairy plant A to collect cheese samples, raw ingredients, and packaging materials; to review employee food handling and hygienic practices; and to assess potential sources of contamination from raw milk. Product and environmental samples (e.g., vat surfaces and floor drains) from the dairy plant were screened for phosphatase activity to identify evidence of raw milk.

Fifty-five laboratory-confirmed case-patients were identified, including two from secondary households. Case-patients were from seven Wisconsin counties (27 from Chippewa and 16 from Eau Claire counties); two case-patients were visiting from out of state. Median age was 27 years (range: 15 months-90 years) and 37 (67%) were female. The most frequently reported symptoms included bloody diarrhea (55 [100%]), cramps (50 [91%]), fatigue (39 [71%]), and nausea (38 [69%]). Mean duration of diarrhea was 5.1 and 4.5 days for 25 hospitalized and 30 nonhospitalized case-patients, respectively.

Cheese Curds — Continued

Eating fresh cheese curds during June 1–17 was reported by all 24 case-patients in Chippewa and Eau Claire counties and eight (18%) of 45 controls (matched odds ratio=undefined; 95% confidence interval=20.6–infinity). Illness was not linked to eating other cheese products (e.g., shredded, sliced, block, or string cheese). Of the 43 laboratory-confirmed case-patients whose cheese curd source could be identified, all had eaten fresh cheese curds produced at dairy plant A; 19 had purchased the curds from an unrefrigerated display at plant A, and 24 had purchased them refrigerated from retail stores that received shipments from plant A. Fifteen (50%) of 30 case-patients who recalled the purchase date had bought the curds on June 5 or 6. The median number of curds eaten was eight (range: one–28), the equivalent of approximately 1.6 oz of cheese.

Thirty-five specimens from plant A that were produced during the outbreak were tested: nine environmental samples, 18 unopened cheese samples, six opened retail packages of curds, and two unopened retail packages of curds. Five of the six opened retail packages of curds and four of the 18 unopened cheese samples were positive for nonbacterial phosphatase (Scharer method). *E. coli* O157:H7 was isolated from an opened package of curds that had been served at a party attended by nine persons with culture-confirmed illness. The contents of this package tested positive for nonbacterial phosphatase. Among 44 *E. coli* O157:H7 case-patient isolates available for pulsed-field gel electrophoresis, 42 were indistinguishable from each other and from the curd isolate.

Dairy plant A had produced four or five vats of pasteurized cheddar and Colby cheese products 5 days a week since 1977. Each vat yielded approximately 1500 pounds of cheese that was pressed into 40-lb blocks, daisies (rounds of cheese), or was packaged as fresh cheese curds. Dairy plant A also produced unpasteurized (raw milk) cheddar cheese daisies every June as part of Dairy Month. Certain raw milk cheese products can be produced and sold legally as long as the cheese is held at $\geq 35^\circ\text{F}$ ($\geq 1.7^\circ\text{C}$) for at least 60 days before it is sold*. Curds are sold fresh (held < 60 days); therefore, curds must be made with pasteurized milk. At least one 1500-lbs vat of raw milk cheddar cheese was made on May 27 and June 2–5. These vats were used inadvertently to make fresh curds, which were incorrectly labeled "pasteurized" cheddar cheese curds, and distributed and sold in six Wisconsin counties.

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Editorial Note: Cheese is made in vats by coagulating milk with enzymes and/or acids. After whey is drained, the large cheese clumps are removed and milled into curds, salted, and packaged in small plastic bags for sale. Raw milk consumption has been associated with campylobacteriosis, salmonellosis, *E. coli* O157:H7, yersiniosis, listeriosis, tuberculosis, brucellosis, cryptosporidiosis, and staphylococcal enterotoxin poisoning (1). In 1950, the U.S. Food and Drug Administration (FDA) required manufacturers of soft and fresh cheeses to use pasteurized milk and allowed raw milk to be used only for certain aged cheeses (2). In 1986, *E. coli* O157:H7 illness was associated with consuming raw milk (3). In 1987, FDA banned the interstate sale of raw milk in retail packages. During 1973–1992, 40 (87%) of 46 raw milk-associated outbreaks occurred in the 28

*Code of Federal Regulations Title 21, Part 133.

Cheese Curds — Continued

states that permitted the intrastate sale of raw milk (4). During the same period, 11 of 32 cheese-associated outbreaks were attributed to contamination before distribution (5).

This outbreak investigation illustrates the hazards of using raw milk to produce commercial products that may lead to mislabeling or contaminating pasteurized product by equipment or ingredients. This practice can result in pasteurized products contaminated by equipment or ingredients and in product mislabeling. States that allow the sale of unpasteurized milk or dairy products made from unpasteurized milk should take appropriate steps to reduce the risk for contamination and mislabeling to prevent similar outbreaks.

References

1. Potter ME, Kaufmann AF, Blake PA, Feldman RA. Unpasteurized milk: the hazards of a health fetish. *JAMA* 1984;252:2048-52.
2. US Food and Drug Administration. Cheeses; processed cheeses; cheese food; cheese spreads, and related foods: definitions and standards of identity; final rule. *Federal Register* 1950;19:5656-90.
3. Martin ML, Shipman LD, Wells JG, et al. Isolation of *Escherichia coli* O157:H7 from dairy cattle associated with two cases of haemolytic uraemic syndrome [Letter]. *Lancet* 1986;8514:1043.
4. Headrick ML, Korangy S, Bean NH, et al. The epidemiology of raw milk-associated foodborne disease outbreaks reported in the United States, 1973 through 1992. *Am J Public Health* 1998;88:1219-21.
5. Altekruse SF, Timbo BB, Mowbray JC, Bean NH, Potter ME. Cheese-associated outbreaks of human illness in the United States, 1973 to 1992: sanitary manufacturing practices protect consumers. *Journal of Food Protection* 1998;61:1405-7.

Enterovirus Surveillance — United States, 1997-1999

Enteroviruses account for an estimated 10-15 million symptomatic infections in the United States each year (1). At present, 66 serotypes of enteroviruses are recognized, including three poliovirus serotypes (2). A range of diseases is associated with nonpolio enterovirus infections, including aseptic meningitis, encephalitis, neonatal enteroviral disease, myocarditis, pericarditis, chronic infections among persons with compromised immune systems, poliomyelitis-like illness, hand-foot-and-mouth disease, nonspecific upper respiratory disease, and other manifestations (3). This report summarizes data from the National Enterovirus Surveillance System (NESS) and describes temporal trends of reported enterovirus infections in the United States during 1997-1999.

From January 1997 through December 1999, state public health laboratories reported to CDC 1741 enterovirus isolates, including 1672 isolates of nonpolio enteroviruses (Table 1) and 69 isolates of vaccine-related polioviruses. The number of states reporting enterovirus isolations declined from 14 in 1997 to eight in 1999.

Of the 1672 nonpolio enterovirus isolates, echovirus 30 was the predominant serotype and accounted for 27.5% of all isolates, followed by echovirus 11 (13.8%), echovirus 9 (8.7%), and echovirus 6 (6.9%). Enterovirus serotype was reported as unknown for 13.1% of the isolates. The 15 most common serotypes accounted for 88.6%-98.2% of all isolates each year. Of the 63 known nonpolio enterovirus serotypes, 38 were reported during 1997-1999. Of these, 15 serotypes (coxsackie viruses A9, B2, B3, B4, B5; echoviruses 4, 5, 6, 9, 11, 16, 18, 25, 30; and enterovirus 71) have been reported in each of the 3 years. Twelve of these serotypes were among the 15 most common enteroviruses reported during 1997-1999.

Enterovirus Surveillance — Continued

TABLE 1. Frequency of the most common nonpolio enterovirus isolates — United States, 1997–1999

Rank	1997 (n=524)		1998 (n=795)		1999 (n=353)		Total (n=1672)	
	Serotype	%	Serotype	%	Serotype	%	Serotype	%
1	echovirus 30	17.4	echovirus 30	45.9	echovirus 11	40.5	echovirus 30	27.5
2	echovirus 6	15.6	unknown	14.7	unknown	14.4	echovirus 11	13.8
3	echovirus 7	10.3	echovirus 9	12.1	echovirus 16	10.8	unknown	13.1
4	unknown	9.7	echovirus 11	6.0	echovirus 9	8.8	echovirus 9	8.7
5	echovirus 11	7.4	coxsackie B3	3.6	echovirus 14	4.8	echovirus 6	6.9
6	echovirus 18	5.5	echovirus 6	3.5	echovirus 25	4.0	echovirus 7	3.4
7	coxsackie B1	4.6	coxsackie B2	3.3	enterovirus 71	2.8	coxsackie B2	2.9
8	coxsackie A9	4.2	coxsackie B1	2.1	coxsackie A9	2.5	coxsackie A9	2.8
9	echovirus 9	3.6	coxsackie A9	2.0	coxsackie B3	2.0	echovirus 18	2.7
10	coxsackie B2	3.6	echovirus 18	1.8	echovirus 6	1.7	echovirus 16	2.6
11	echovirus 17	1.9	coxsackie B4	1.4	echovirus 30	1.1	coxsackie B1	2.5
12	echovirus 4	1.5	echovirus 4	0.5	coxsackie B2	1.1	coxsackie B3	2.3
13	coxsackie B4	1.3	enterovirus 71	0.5	coxsackie B4	0.9	enterovirus 71	2.1
14	echovirus 5	1.0	echovirus 16	0.4	echovirus 4	0.9	coxsackie B4	1.3
15	coxsackie A16	1.0	echovirus 25	0.4	echovirus 18	0.6	echovirus 25	1.1
15 most frequent serotypes		88.6		98.2		96.9		93.7

Enterovirus Surveillance — Continued

During 1997–1999, the proportion of isolates for some serotypes, such as echoviruses 6, 7, 11, and 30, varied widely, and the proportion of isolates for some other serotypes (e.g., coxsackieviruses B2 and B4) remained relatively low but constant.

In addition to nonpolio enteroviruses, 69 isolates of vaccine-related polioviruses were reported (3.9% of all enterovirus isolates). The number of vaccine-related poliovirus isolates declined from 47 (8.2%) in 1997 to 19 (2.3%) in 1998, to three (0.8%) in 1999.

Of the 25.3% of reports that included clinical information, most of the reported diagnoses were aseptic meningitis (37.6%) or respiratory illness (9.3%) and a smaller percentage were encephalitis (4.1%) and carditis and paralytic illness (0.2%). The source for enterovirus isolation was the cerebrospinal fluid (44.2% of reports), a stool specimen or a rectal swab (24.2%), a nasopharyngeal specimen (20.9%), and a urine sample (1.1%). For 9.6% of reports, the source of enterovirus isolation was not noted. Children aged <1 year accounted for 45% of all reported enterovirus isolates.

Reported by: State virology laboratory directors. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial note: To monitor temporal patterns of enterovirus circulation, state public health laboratories voluntarily report enterovirus isolates by serotype to CDC through NESS. The findings in this report are consistent with previous observations on temporal variability of predominant serotypes. Some serotypes appear to circulate endemically and others circulate in a cyclical fashion with epidemic years followed by years with decreased activity (1). Of the 15 most common serotypes during 1997–1999, 10 serotypes (echoviruses 30, 11, 9, 6, and 7; coxsackieviruses B2, A9, B3, and B4; and enterovirus 71) were among the most common enteroviruses during 1993–1996 (4). Of these, only enterovirus 71 was not included among the predominating serotypes during 1970–1983 (1). The proportion of less common serotypes declined from 17.8% during 1993–1996 (4) to 6.3% during 1997–1999. The proportion of enterovirus isolates of unknown serotype increased from 3.8% of all isolates during 1993–1996 (4) to 13.1% during 1997–1999.

The decline in numbers of vaccine-related poliovirus isolates during 1997–1999 probably resulted from declining use of oral polio vaccine (OPV) in the United States. To prevent cases of vaccine-associated polio, CDC's Advisory Committee on Immunization Practices recommended transition from an all-OPV schedule to a sequential schedule of polio vaccination (i.e., two doses of inactivated polio vaccine followed by two doses of OPV) beginning in 1997 (5) with further narrowing of the options for administering OPV beginning in 1999 (6).

Enterovirus surveillance data provide information for detecting major temporal trends in enterovirus circulation in the United States. However, the data may not be representative of the general U.S. population because of the limited number of reporting laboratories. In addition, this number has declined from 25 in 1993, to 14 in 1996 (4), to eight in 1999. This decline is of concern, especially at a time when enterovirus antiviral drugs are being developed (7,8). Because of the variability in susceptibility of different enterovirus serotypes to some antiviral drugs (9), data about the circulating serotypes will be helpful in considering the impact of these drugs on enterovirus disease. Enterovirus surveillance data also are important for use in confirming that wild poliovirus has been eradicated from the United States. Finally, new methods, such as the polymerase chain reaction assay and sequencing studies, are improving the ability to diagnose and serotype enterovirus infections (2,10) and may improve surveillance for enterovirus serotypes.

Enterovirus Surveillance — Continued

CDC is considering changes to promote more complete and timely reporting of enterovirus surveillance data and to include new approaches for detecting and serotyping enterovirus infections.

References

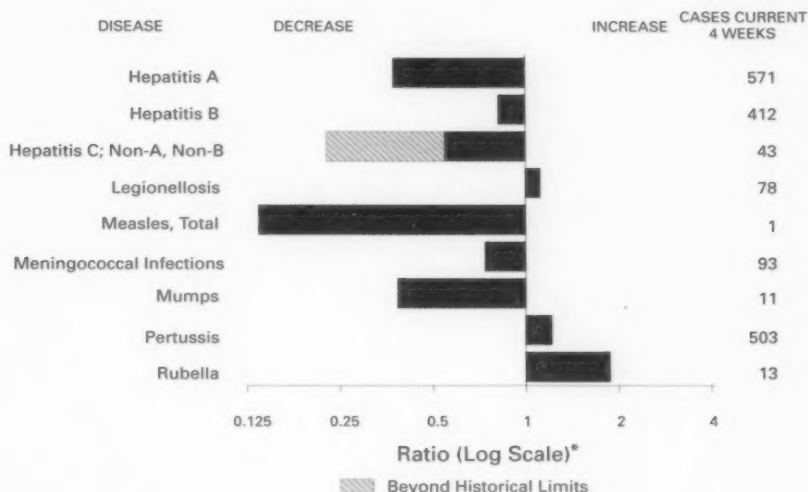
1. Strikas RA, Anderson L, Parker RA. Temporal and geographic patterns of isolates of nonpolio enteroviruses in the United States, 1970–1983. *J Infect Dis* 1986;153:346–51.
2. Oberste MS, Maher K, Kilpatrick DR, Pallansch MA. Molecular evolution of human enteroviruses: correlation of serotype with VP1 sequence and application to picornavirus classification. *J Virol* 1999;73:1941–8.
3. Melnick J. Enteroviruses: polioviruses, coxsackieviruses, echoviruses, and newer enteroviruses. In: Fields BN, Knippe DM, Howley PM, et al, eds. *Fields virology*. 3rd ed. Philadelphia, Pennsylvania: Lippincott-Raven Publishers, 1996:655–712.
4. CDC. Nonpolio enterovirus surveillance—United States, 1993–1996. *MMWR* 1997;46:748–50.
5. CDC. Poliomyelitis prevention in the United States: introduction of a sequential vaccination schedule of inactivated poliovirus vaccine followed by oral poliovirus vaccine; recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1997;46(no. RR-3).
6. CDC. Recommended childhood immunization schedule—United States, 1999. *MMWR* 1999;48:8–16.
7. O'Connel J, Albin R, Blum D, Grint P, Schwartz J. Development of antiviral agents for picornavirus infections. In: Rotbart HA, ed. *Human enterovirus infections*. American Society for Microbiology, 1995:419–34.
8. Rotbart HA. Antiviral treatment for enteroviral infections. *Pediatr Infect Dis J* 1999;18:632–3.
9. Pevar DC, Tull TM, Seipel ME, Groarke JM. Activity of pleconaril against enteroviruses. *Antimicrob Agents Chemother* 1999;43:2109–15.
10. Rotbart HA, Romero JR. Laboratory diagnosis of enterovirus infections. In: Rotbart HA, ed. *Human enterovirus infections*. American Society for Microbiology, 1995:401–18.

Erratum: Vol. 49, No. 39

In the Notice to Readers, "Updated Recommendations From the Advisory Committee on Immunization Practices in Response to Delays in Supply of Vaccine for the 2000–01 Season," on page 889 in the last sentence of the second paragraph, an age range was incorrect. The sentence should read, "More than 18,000 (>90%) of these deaths and approximately 48,000 of the P&I hospitalizations per year occur among persons aged ≥ 65 years who are at highest risk for influenza-related complications."

Erratum: Vol 49, No. 37

In the Table, "Reported cases of notifiable diseases, by geographic division and area, United States, 1999" on page 851, population and disease incidence data for Nevada were deleted inadvertently. The data should have been reported as follows: Total resident population (in thousands), 1,809; AIDS, 242; Botulism, foodborne 0; Botulism, infant 1; Brucellosis, 0; and Chancroid, 0.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending October 7, 2000, with historical data

* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending October 7, 2000 (40th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	Poliomyelitis, paralytic	-
Brucellosis*	52	Psittacosis*	8
Cholera	1	Q fever*	16
Cyclosporiasis*	36	Rabies, human	1
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	354
Ehrlichiosis: human granulocytic (HGE)*	144	Rubella, congenital syndrome	6
human monocytic (HME)*	81	Streptococcal disease, invasive, group A	2,243
Encephalitis: California serogroup viral*	86	Streptococcal toxic-shock syndrome*	62
eastern equine*	-	Syphilis, congenital†	173
St. Louis*	2	Tetanus	19
western equine*	-	Toxic-shock syndrome	123
Hansen disease (leprosy)*	47	Trichinosis	11
Hantavirus pulmonary syndrome**	27	Tularemia*	101
Hemolytic uremic syndrome, postdiarrheal*	141	Typhoid fever	264
HIV infection, pediatric**	170	Yellow fever	-
Plague	5		

-: No reported cases.

*Not notifiable in all states.

†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

**Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update September 24, 2000.

†Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	AIDS		Chlamydia ¹		Cryptosporidiosis		Escherichia coli O157:H7*			
	Cum.		Cum.		Cum.		NETSS		PHLIS	
	2000 ¹	1999	2000	1999	2000	1999	2000	1999	2000	1999
UNITED STATES	30,346	33,919	493,045	502,046	1,863	2,060	3,539	2,820	2,406	2,206
NEW ENGLAND	1,599	1,676	15,990	16,242	75	151	313	339	313	321
Maine	27	56	1,127	792	17	21	24	31	25	-
N.H.	28	38	792	750	18	15	30	26	28	29
Vt.	22	13	403	363	23	32	31	27	31	18
Mass.	1,006	1,094	6,746	6,906	14	60	134	152	145	164
R.I.	78	77	1,534	1,774	3	2	14	24	12	26
Conn.	438	399	4,988	5,657	-	21	80	79	72	84
MID. ATLANTIC	6,780	8,675	43,992	51,066	136	417	338	226	196	105
Upstate N.Y.	692	957	N	N	90	119	239	163	38	-
N.Y. City	3,619	4,588	19,729	21,237	9	198	10	16	9	17
N.J.	1,336	1,608	6,014	9,405	9	33	89	47	88	54
Pa.	1,133	1,522	18,249	20,424	28	68	N	N	60	34
E.N. CENTRAL	2,871	2,304	79,900	83,916	625	535	785	814	454	428
Ohio	427	376	20,859	22,813	210	46	219	167	165	170
Ind.	296	257	9,556	9,165	52	34	113	72	71	53
Ill.	1,569	1,104	21,520	25,242	7	80	153	474	-	81
Mich.	437	454	19,338	16,346	85	42	116	101	82	74
Wis.	152	113	8,827	10,350	271	334	184	N	136	50
W.N. CENTRAL	681	762	27,897	28,719	217	171	559	440	412	473
Minn.	130	138	5,396	5,794	24	64	139	143	139	158
Iowa	70	68	3,618	3,404	67	51	166	96	76	68
Mo.	316	370	9,384	10,245	22	19	110	36	82	55
N. Dak.	2	6	577	703	9	16	15	16	17	16
S. Dak.	7	13	1,366	1,198	15	6	49	38	52	57
Nebr.	53	57	2,901	2,889	72	13	58	65	32	107
Kans.	103	110	4,655	4,886	8	2	22	26	14	12
S. ATLANTIC	8,394	9,346	97,440	106,063	358	298	302	255	185	157
Del.	156	128	2,205	2,103	5	-	1	1	3	-
Md.	1,060	1,113	10,080	9,969	10	13	26	26	1	2
D.C.	570	570	2,475	N	7	1	0	0	U	U
Va.	574	600	12,028	11,180	15	21	57	62	50	60
W. Va.	47	53	1,379	1,406	3	3	13	11	10	6
N.C.	529	632	17,270	17,403	21	15	74	55	58	46
S.C.	660	790	7,991	14,350	-	-	19	18	14	14
Fla.	963	1,377	19,729	25,512	133	115	38	26	26	1
Ga.	3,815	4,245	24,285	24,140	156	124	73	51	25	32
E.S. CENTRAL	1,533	1,530	37,150	35,799	40	27	110	111	80	85
Ky.	160	220	6,122	5,795	5	6	36	33	27	23
Tenn.	657	585	11,149	10,985	10	9	49	49	38	38
Ala.	397	398	12,016	9,976	14	10	8	21	7	20
Miss.	319	327	7,863	9,043	11	2	17	8	8	4
W.S. CENTRAL	3,049	3,507	76,402	70,627	82	72	157	88	188	121
Ark.	150	131	4,396	4,642	10	1	55	12	30	10
La.	510	663	14,124	12,827	10	22	9	12	42	13
Okla.	257	102	6,367	6,165	14	8	19	19	11	20
Tex.	2,132	2,611	51,515	46,993	48	41	79	45	105	78
MOUNTAIN	1,131	1,339	28,658	26,045	135	83	360	238	196	186
Mont.	19	8	1,023	1,133	10	10	29	17	-	-
Idaho	19	19	1,394	1,355	12	7	59	35	-	21
Wyo.	7	10	587	598	5	14	14	14	2	14
Colo.	258	235	8,296	5,209	60	11	134	92	86	70
N. Mex.	116	74	3,530	3,916	15	37	19	11	15	5
Ariz.	367	694	9,286	9,720	11	10	43	25	32	19
Utah	112	116	1,626	1,641	18	N	50	30	61	42
Nev.	240	183	2,906	2,473	4	7	12	14	-	15
PACIFIC	4,308	4,780	85,616	83,569	195	306	615	309	382	330
Wash.	394	281	9,531	9,089	N	N	185	128	173	155
Oreg.	113	151	3,754	4,721	16	86	132	57	103	63
Calif.	3,693	4,274	68,233	65,828	179	220	260	111	95	101
Alaska	15	13	1,881	1,472	-	-	24	1	1	1
Hawaii	93	61	2,217	2,459	-	-	14	12	10	10
Guam	15	11	-	355	-	-	N	N	U	U
P.R.	1,028	1,013	3,025	U	-	-	6	5	U	U
V.I.	27	25	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

N: Not notifiable.

U: Unavailable.

-: No reported cases.

C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

¹ Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.² Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update September 24, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Listeriosis	Lyme Disease	
	Cum. 2000 ^a	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	257,522	275,086	2,399	2,178	727	758	544	10,427	12,235
NEW ENGLAND	4,465	5,106	14	14	40	62	41	3,372	3,650
Maine	69	60	2	2	2	3	2	-	34
N.H.	81	89	-	-	2	6	2	50	10
Vt.	51	37	4	6	4	12	3	21	18
Mass.	1,834	1,917	3	3	12	24	21	920	678
R.I.	477	457	5	3	5	7	-	384	350
Conn.	1,953	2,546	-	-	15	10	13	1,997	2,560
MID. ATLANTIC	26,923	30,651	443	100	156	185	131	5,424	6,497
Upstate N.Y.	5,323	5,129	56	48	62	49	71	2,923	3,000
N.Y. City	8,597	9,768	-	-	-	32	21	14	130
N.J.	4,478	5,940	352	-	14	15	21	1,304	1,468
Pa.	8,525	9,814	35	52	80	89	18	1,183	1,899
E.N. CENTRAL	48,587	52,635	175	755	188	213	88	318	545
Ohio	12,307	13,870	9	3	89	59	44	77	40
Ind.	4,493	4,882	1	1	33	34	8	30	17
Ill.	14,720	17,775	13	42	9	29	11	11	17
Mich.	13,432	11,568	152	693	35	55	22	-	11
Wis.	3,635	4,540	-	16	22	36	3	200	460
W.N. CENTRAL	12,520	12,621	481	193	51	42	13	258	254
Minn.	2,142	2,189	5	7	3	6	5	176	151
Iowa	911	932	1	-	12	12	3	21	21
Mo.	6,074	6,110	460	183	27	16	4	42	58
N. Dak.	35	69	-	-	-	1	1	1	1
S. Dak.	224	136	-	-	2	2	-	-	-
Nebr.	1,143	1,168	6	3	3	5	-	4	10
Kans.	2,091	2,017	9	-	4	-	-	14	13
S. ATLANTIC	72,364	80,296	101	141	151	105	87	831	1,029
Del.	1,312	1,323	-	-	8	13	1	140	85
Md.	6,941	7,426	18	19	51	24	18	449	741
D.C.	1,979	2,893	3	1	4	3	-	5	3
Va.	7,766	7,474	3	10	28	26	7	125	85
W. Va.	451	447	3	17	N	N	3	28	15
N.C.	14,152	15,361	13	32	13	13	-	42	63
S.C.	10,128	10,817	2	22	4	7	9	5	4
Ga.	12,739	17,280	3	1	6	1	21	-	-
Fla.	16,896	17,275	45	39	37	18	28	39	23
E.S. CENTRAL	27,103	28,754	346	230	27	41	16	42	86
Ky.	2,684	2,631	30	15	15	15	3	9	3
Tenn.	8,912	8,866	77	89	10	21	10	27	48
Ala.	9,383	8,956	7	1	2	3	3	6	18
Miss.	6,124	8,301	232	125	-	2	-	-	4
W.S. CENTRAL	40,153	40,571	403	428	15	10	14	36	45
Ark.	2,407	2,429	9	24	-	1	1	4	4
La.	10,455	10,261	289	255	6	5	-	3	7
Okla.	2,835	3,018	7	15	2	3	6	-	7
Tex.	24,456	24,863	98	134	7	1	7	29	27
MOUNTAIN	7,745	7,472	275	149	33	39	26	27	13
Mont.	31	34	4	5	1	-	-	-	-
Idaho	64	68	3	6	4	2	-	3	3
Wyo.	41	23	207	39	2	-	1	9	3
Calo.	2,427	1,877	20	28	11	11	5	9	2
N. Mex.	793	773	13	27	1	1	1	-	1
Ariz.	3,096	3,512	15	30	7	5	12	-	-
Utah	166	163	1	6	7	14	4	2	2
Nev.	1,127	1,022	12	8	-	6	3	4	2
PACIFIC	17,662	16,980	161	168	66	61	128	119	116
Wash.	1,696	1,696	26	13	16	11	5	7	7
Oreg.	525	686	25	14	N	N	5	8	12
Calif.	14,888	14,137	108	141	50	49	115	102	97
Alaska	257	239	-	-	-	1	-	2	-
Hawaii	296	349	2	-	-	-	3	N	N
Guam	-	41	-	1	-	-	-	-	-
P.R.	529	264	1	-	1	-	-	N	N
V.I.	U	U	U	U	U	U	-	U	U
Amer. Samoa	U	U	U	U	U	U	-	U	U
C.N.M.I.	U	U	U	U	U	U	-	U	U

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	907	1,133	4,623	5,225	27,386	29,516	22,288	26,451
NEW ENGLAND	44	50	639	689	1,751	1,761	1,664	1,804
Maine	6	3	106	132	106	113	78	91
N.H.	1	2	9	40	109	114	101	110
Vt.	2	4	49	33	97	78	107	67
Mass.	10	16	213	163	987	965	920	977
R.I.	8	4	51	74	117	86	114	134
Conn.	17	21	211	197	335	405	344	425
MID. ATLANTIC	175	323	850	1,005	3,147	4,009	3,282	4,161
Upstate N.Y.	62	54	583	715	949	1,020	971	1,067
N.Y. City	57	186	U	U	716	1,175	723	1,201
N.J.	31	47	153	149	685	821	444	915
Pa.	25	36	114	141	797	993	1,144	978
E.N. CENTRAL	98	136	134	147	3,925	4,279	2,517	3,821
Ohio	17	18	46	31	1,114	990	1,004	878
Ind.	4	19	-	12	503	407	462	386
Ill.	42	60	20	9	1,094	1,336	1	1,292
Mich.	25	32	60	76	693	800	720	801
Wis.	10	7	8	19	521	746	330	464
W.N. CENTRAL	38	62	445	609	1,884	1,811	1,823	2,003
Minn.	13	33	73	86	402	481	498	604
Iowa	3	12	67	128	298	206	185	187
Mo.	7	12	41	24	578	569	697	715
N. Dak.	2	-	105	125	48	40	63	52
S. Dak.	-	-	75	153	-	75	92	104
Nebr.	7	1	2	4	186	159	50	143
Kans.	6	4	82	89	292	281	238	198
S. ATLANTIC	249	275	1,858	1,698	6,041	6,462	4,016	5,197
Del.	14	42	47	69	89	125	106	126
Md.	79	80	323	322	652	685	600	733
D.C.	15	16	-	-	52	65	U	U
Va.	46	55	421	437	791	1,043	697	877
W. Va.	3	2	97	92	135	133	120	129
N.C.	30	24	455	355	866	948	806	1,100
S.C.	2	13	123	119	560	502	436	397
Ga.	16	21	272	178	1,059	1,029	1,155	1,320
Fla.	55	63	125	148	1,837	1,932	96	515
E.S. CENTRAL	37	23	167	216	1,690	1,629	1,184	1,155
Ky.	13	7	18	32	303	323	209	217
Tenn.	10	8	87	77	464	449	482	477
Ala.	13	7	62	107	506	473	423	383
Miss.	1	1	-	-	417	384	70	78
W.S. CENTRAL	18	15	70	377	2,434	2,890	2,818	2,143
Ark.	3	3	20	14	559	512	329	153
La.	7	10	7	243	606	606	485	455
Okla.	8	2	50	80	324	366	205	287
Tex.	-	-	-	283	1,308	1,406	1,799	1,248
MOUNTAIN	40	38	212	180	2,281	2,394	1,675	2,129
Mont.	1	4	57	52	72	49	-	1
Idaho	3	3	9	8	88	82	-	82
Wyo.	-	1	47	40	51	51	32	47
Colo.	21	15	-	1	605	614	550	600
N. Mex.	-	2	18	8	190	323	167	254
Ariz.	7	6	63	66	641	708	550	659
Utah	4	4	10	7	404	411	376	437
Nev.	4	3	8	6	220	155	-	49
PACIFIC	208	211	248	304	4,233	4,281	3,309	4,038
Wash.	24	22	-	-	432	514	547	683
Oreg.	34	18	7	3	254	357	301	394
Calif.	145	159	220	294	3,306	3,084	2,271	2,698
Alaska	-	1	21	7	54	46	23	30
Hawaii	5	11	-	-	187	280	167	233
Guam	-	-	-	-	-	31	U	U
P.R.	4	-	66	63	440	443	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS Cum. 2000	Cum. 1999	PHLIS Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	15,103	12,411	7,749	7,473	4,556	5,193	9,340	11,968
NEW ENGLAND	316	658	304	625	55	48	318	327
Maine	11	4	12	-	1	-	12	13
N.H.	4	15	8	14	1	1	15	10
Vt.	4	6	-	4	-	3	4	2
Mass.	225	561	208	538	36	26	191	187
R.I.	24	21	28	17	4	2	27	32
Conn.	48	51	48	52	13	16	69	83
MID. ATLANTIC	1,670	834	1,032	587	210	233	1,727	2,008
Upstate N.Y.	618	230	180	59	11	17	226	246
N.Y. City	607	275	426	202	101	97	939	1,032
N.J.	270	199	235	179	35	56	409	415
Pa.	175	130	191	147	63	63	153	315
E.N. CENTRAL	3,145	2,319	899	1,233	899	927	951	1,264
Ohio	291	349	213	113	63	69	205	198
Ind.	1,325	235	133	84	291	336	75	104
Ill.	795	932	2	714	259	333	472	642
Mich.	543	337	504	262	218	152	133	242
Wis.	191	466	47	60	38	35	66	78
W.N. CENTRAL	1,746	957	1,402	639	49	109	357	398
Minn.	508	188	614	200	9	9	113	148
Iowa	420	42	217	37	10	9	27	37
Mo.	535	601	391	301	23	75	146	147
N. Dak.	14	3	37	2	-	-	2	6
S. Dak.	6	11	4	6	-	-	14	12
Nebr.	104	89	49	57	2	6	18	15
Kans.	159	43	90	36	5	10	37	33
S. ATLANTIC	2,211	1,873	785	429	1,502	1,676	1,998	2,430
Del.	18	12	19	8	8	7	-	23
Md.	163	129	89	46	217	304	192	210
D.C.	67	46	U	U	38	39	23	37
Va.	351	105	259	51	105	122	326	221
W. Va.	4	8	3	4	2	3	23	35
N.C.	196	165	201	74	394	395	228	351
S.C.	106	101	74	52	156	213	104	206
Ga.	192	178	78	68	292	330	435	466
Fla.	1,114	1,130	62	127	290	263	667	881
E.S. CENTRAL	797	998	367	592	691	907	575	807
Ky.	325	209	59	135	63	81	83	146
Tenn.	274	591	269	394	416	509	250	280
Ala.	54	98	36	53	100	176	242	239
Miss.	144	100	3	10	112	141	-	142
W.S. CENTRAL	1,695	2,025	2,000	879	641	833	853	1,586
Ark.	165	70	44	23	75	56	140	135
La.	133	162	138	94	172	243	74	U
Okla.	94	458	31	148	105	156	105	140
Tex.	1,303	1,335	1,787	614	289	378	534	1,179
MOUNTAIN	935	802	510	555	186	179	380	403
Mont.	7	7	-	-	-	1	10	10
Idaho	43	20	-	9	1	1	10	12
Wyo.	5	3	2	1	1	-	2	3
Colo.	201	152	135	117	9	2	57	55
N. Mex.	114	58	67	72	20	6	29	47
Ariz.	391	395	235	297	149	161	163	177
Utah	69	48	71	53	1	2	38	30
Nev.	106	79	-	6	5	4	71	69
PACIFIC	2,588	1,945	450	1,934	353	281	2,181	2,745
Wash.	369	90	339	87	51	57	180	192
Oreg.	149	72	84	67	5	5	25	85
Calif.	2,028	1,756	-	1,752	296	215	1,797	2,290
Alaska	8	2	3	2	-	1	78	42
Hawaii	34	25	24	26	1	3	101	136
Guam	-	11	U	U	-	-	-	52
P.R.	23	121	U	U	122	128	238	161
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.

*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	<i>H. influenzae</i> , invasive		Hepatitis (Viral), By Type				Measles (Rubeola)				Total	
	Cum. 2000*	Cum. 1999	A		B		Indigenous		Imported*		Cum. 2000	Cum. 1999
			Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000		
UNITED STATES	885	943	9,218	12,716	5,245	5,344	-	54	-	18	72	79
NEW ENGLAND	77	72	270	246	78	120	-	2	-	4	6	11
Maine	1	5	15	8	5	1	-	-	-	-	-	-
N.H.	12	13	18	14	15	13	-	2	-	1	3	1
Vt.	6	5	8	16	6	3	-	-	-	3	3	-
Mass.	36	29	102	90	9	40	-	-	-	-	-	8
R.I.	4	4	21	14	15	26	-	-	-	-	-	-
Conn.	18	16	106	104	28	37	-	-	-	-	-	2
MID. ATLANTIC	144	159	897	949	751	680	-	14	-	5	19	5
Upstate N.Y.	78	65	171	210	109	149	-	9	-	-	9	2
N.Y. City	28	50	261	310	349	206	-	5	-	4	9	3
N.J.	29	39	158	122	105	106	-	-	-	-	-	-
Pa.	9	5	307	307	188	219	-	-	-	1	1	-
E.N. CENTRAL	117	157	1,070	2,383	547	568	-	8	-	-	8	2
Ohio	44	51	220	533	88	77	-	2	-	-	2	-
Ind.	26	20	77	86	40	35	-	-	-	-	-	1
Ill.	40	65	399	617	100	48	-	4	-	-	4	-
Mich.	7	16	361	1,062	318	381	-	2	-	-	2	1
Wis.	-	5	13	65	1	27	-	-	-	-	-	-
W.N. CENTRAL	53	59	688	619	554	213	-	2	-	1	3	-
Minn.	29	38	173	61	30	40	-	-	-	1	1	-
Iowa	-	2	62	115	27	35	-	2	-	-	2	-
Mo.	15	6	332	372	440	115	-	-	-	-	-	-
N. Dak.	1	1	3	2	2	-	-	-	-	-	-	-
S. Dak.	1	2	1	8	1	1	-	-	-	-	-	-
Nebr.	3	4	29	43	33	15	-	-	-	-	-	-
Kans.	4	6	88	18	21	7	-	-	-	-	-	-
S. ATLANTIC	234	202	1,128	1,468	954	894	-	3	-	-	3	14
Del.	-	-	-	2	-	1	-	-	-	-	-	-
Md.	62	53	178	250	90	122	U	-	U	-	-	-
D.C.	-	4	20	54	27	22	-	-	-	-	-	-
Va.	34	15	120	133	129	74	-	2	-	-	2	12
W. Va.	7	7	52	32	10	22	-	-	-	-	-	-
N.C.	20	28	116	127	183	194	-	-	-	-	-	-
S.C.	12	5	52	39	13	61	-	-	-	-	-	-
Ga.	56	55	217	384	157	127	-	-	-	-	-	-
Fla.	43	35	373	447	345	271	U	1	U	-	1	2
E.S. CENTRAL	39	53	312	319	357	367	-	-	-	-	-	2
Ky.	12	6	37	59	57	36	-	-	-	-	-	2
Tenn.	18	29	116	125	174	182	-	-	-	-	-	-
Ala.	8	15	47	44	45	72	-	-	-	-	-	-
Miss.	1	3	112	91	81	77	-	-	-	-	-	-
W.S. CENTRAL	54	53	1,480	2,497	613	921	-	-	-	-	-	9
Ark.	2	2	104	39	71	57	-	-	-	-	-	2
La.	11	12	55	188	86	150	-	-	-	-	-	-
Okla.	39	35	220	416	122	116	-	-	-	-	-	-
Tex.	2	4	1,101	1,854	334	598	-	-	-	-	-	7
MOUNTAIN	81	89	774	1,014	403	465	-	11	-	1	12	1
Mont.	1	2	5	17	7	17	-	-	-	-	-	-
Idaho	3	1	21	35	7	25	-	-	-	-	-	-
Wyo.	1	1	39	8	24	12	-	-	-	-	-	-
Colo.	11	13	166	188	72	80	-	1	-	1	2	-
N. Mex.	18	18	60	42	80	148	-	-	-	-	-	-
Ariz.	37	46	385	564	154	116	-	-	-	-	-	1
Utah	8	5	45	39	19	28	-	3	-	-	3	-
Nev.	2	3	53	121	40	41	-	7	-	-	7	-
PACIFIC	86	99	2,599	3,221	988	1,116	-	14	-	7	21	35
Wash.	5	4	231	261	86	55	-	2	-	1	3	5
Oreg.	24	32	144	208	83	86	-	-	-	-	-	12
Calif.	28	50	2,202	2,723	801	947	-	11	-	3	14	17
Alaska	6	5	9	10	8	15	-	1	-	-	1	-
Hawaii	23	8	13	19	10	13	-	-	-	3	3	1
Guam	-	-	-	1	-	2	U	-	U	-	-	1
P.R.	3	2	195	255	201	181	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U	U

U: Not notifiable. U: Unavailable. - : No reported cases.

*For imported measles, cases include only those resulting from importation from other countries.

†Of 179 cases among children aged <5 years, serotype was reported for 76 and of those, 20 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 7, 2000, and October 9, 1999 (40th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	1,630	1,903	1	273	287	96	4,771	4,746	-	125	236
NEW ENGLAND	105	89	-	4	6	9	1,069	572	-	12	7
Maine	9	5	-	-	-	-	35	-	-	-	-
N.H.	11	11	-	-	1	1	87	78	-	2	-
Vt.	2	4	-	-	1	7	189	53	-	-	-
Mass.	59	51	-	1	4	1	704	401	-	8	7
R.I.	8	4	-	1	-	-	14	24	-	1	-
Conn.	16	14	-	2	-	-	40	16	-	1	-
MID. ATLANTIC	156	179	-	20	35	20	481	762	-	9	31
Upstate N.Y.	52	53	-	9	7	12	228	597	-	2	18
N.Y. City	31	50	-	4	10	-	44	46	-	7	6
N.J.	34	40	-	3	1	-	35	22	-	-	4
Pa.	39	36	-	4	17	8	174	97	-	-	3
E.N. CENTRAL	275	340	-	28	38	5	519	418	-	1	2
Ohio	72	115	-	7	13	-	265	166	-	-	-
Ind.	41	48	-	1	4	1	79	54	-	-	1
Ill.	64	91	-	6	9	-	59	67	-	1	1
Mich.	78	53	-	14	8	4	61	46	-	-	-
Wis.	20	33	-	-	4	-	55	85	-	-	-
W.N. CENTRAL	141	189	-	19	10	6	417	326	-	1	126
Minn.	17	43	-	-	1	5	248	157	-	-	5
Iowa	26	33	-	7	5	-	44	48	-	-	30
Mo.	77	69	-	5	1	-	57	58	-	-	2
N. Dak.	2	3	-	-	-	-	6	4	-	-	-
S. Dak.	5	11	-	-	-	-	4	5	-	-	-
Nebr.	7	10	-	4	-	-	25	4	-	1	89
Kans.	7	20	-	3	3	1	33	50	-	-	-
S. ATLANTIC	260	316	1	41	41	18	381	334	-	73	35
Del.	1	9	-	-	-	-	8	4	-	-	-
Md.	25	45	U	10	3	U	87	107	U	-	1
D.C.	-	3	-	-	2	-	3	-	-	-	-
Va.	36	42	1	9	9	16	87	19	-	-	-
W. Va.	12	6	-	-	-	-	1	2	-	-	-
N.C.	32	36	-	5	8	-	77	86	-	64	34
S.C.	19	41	-	10	4	1	24	15	-	7	-
Ga.	40	52	-	2	4	1	35	34	-	-	-
Fla.	96	82	U	5	11	U	59	67	U	2	-
E.S. CENTRAL	113	132	-	7	11	-	88	80	-	5	2
Ky.	24	26	-	1	-	-	41	23	-	1	-
Tenn.	47	54	-	2	-	-	28	34	-	1	-
Ala.	32	32	-	2	8	-	18	20	-	3	2
Miss.	10	20	-	2	3	-	1	3	-	-	-
W.S. CENTRAL	111	186	-	24	37	-	280	170	-	5	13
Ark.	12	31	-	2	-	-	31	20	-	-	4
La.	34	57	-	4	10	-	12	9	-	1	-
Okla.	24	28	-	-	1	-	14	33	-	-	1
Tex.	41	70	-	18	26	-	223	108	-	4	8
MOUNTAIN	115	120	-	19	22	16	632	595	-	2	16
Mont.	4	2	-	1	-	-	35	2	-	-	-
Idaho	7	9	-	-	1	1	54	132	-	-	-
Wyo.	-	4	-	2	-	-	6	2	-	-	-
Colo.	30	31	-	1	6	11	359	221	-	1	1
N. Mex.	8	13	-	1	N	1	79	84	-	-	-
Ariz.	56	40	-	4	7	1	70	93	-	1	13
Utah	7	14	-	4	3	1	17	55	-	-	1
Nev.	3	7	-	6	5	1	12	6	-	-	1
PACIFIC	354	352	-	111	87	21	904	1,499	-	17	4
Wash.	44	59	-	10	2	12	304	580	-	7	-
Oreg.	57	61	N	N	N	1	103	42	-	-	-
Calif.	237	220	-	80	70	8	449	830	-	10	4
Alaska	8	6	-	7	2	-	19	4	-	-	-
Hawaii	8	6	-	14	13	-	29	33	-	-	-
Guam	-	1	U	-	1	U	-	2	U	-	-
P.R.	9	10	-	-	-	-	4	21	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE IV. Deaths in 122 U.S. cities,* week ending
October 7, 2000 (40th Week)

Reporting Area	All Causes, By Age (Years)						P&J [†] Total	Reporting Area	All Causes, By Age (Years)						P&J [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	571	398	111	33	12	17	51	S. ATLANTIC	1,021	676	211	94	22	17	63
Boston, Mass.	176	114	40	12	4	6	16	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	26	21	6	-	-	1	3	Baltimore, Md.	170	113	26	18	3	1	16
Cambridge, Mass.	11	9	1	1	-	-	1	Charlotte, N.C.	79	49	18	8	1	3	5
Fall River, Mass.	17	15	1	1	-	-	2	Jacksonville, Fla.	137	96	29	9	1	3	9
Hartford, Conn.	52	38	6	2	2	4	1	Miami, Fla.	86	54	19	11	2	2	7
Lowell, Mass.	26	20	4	2	-	-	5	Norfolk, Va.	53	34	10	5	2	1	2
Lynn, Mass.	16	12	2	2	-	-	2	Richmond, Va.	90	60	17	6	4	3	8
New Bedford, Mass.	31	25	4	1	1	-	3	Savannah, Ga.	62	40	11	8	2	1	4
New Haven, Conn.	27	18	7	-	1	1	2	St. Petersburg, Fla.	65	46	8	7	2	-	4
Providence, R.I.	52	40	10	1	-	1	9	Tampa, Fla.	168	112	38	14	2	2	4
Somerville, Mass.	3	2	1	-	-	-	-	Washington, D.C.	101	64	26	8	3	-	6
Springfield, Mass.	30	14	9	5	2	-	3	Wilmington, Del.	8	7	-	-	-	1	1
Waterbury, Conn.	38	26	9	2	-	1	1	E.S. CENTRAL	823	554	173	48	26	21	56
Worcester, Mass.	64	44	11	4	2	3	4	Birmingham, Ala.	181	128	42	7	3	1	16
MID. ATLANTIC	2,241	1,606	426	130	46	32	115	Chattanooga, Tenn.	87	67	10	5	2	3	2
Albany, N.Y.	56	39	11	4	1	-	3	Knoxville, Tenn.	76	52	17	3	2	2	5
Allentown, Pa.	17	15	1	1	-	-	1	Lexington, Ky.	63	48	10	3	1	1	4
Buffalo, N.Y.	67	49	12	4	-	2	3	Memphis, Tenn.	156	95	40	12	6	3	10
Camden, N.J.	30	22	5	1	2	-	1	Mobile, Ala.	67	46	11	5	2	3	1
Elizabeth, N.J.	30	20	6	3	-	1	-	Montgomery, Ala.	41	28	7	4	2	-	3
Erie, Pa.	53	42	8	2	-	1	1	Nashville, Tenn.	152	90	36	10	8	8	15
Jersey City, N.J.	34	24	4	2	-	4	-	W.S. CENTRAL	1,372	882	261	122	63	44	84
New York City, N.Y.	1,023	723	206	80	24	10	31	Austin, Tex.	79	44	21	10	1	3	6
Newark, N.J.	68	31	20	13	2	2	2	Baton Rouge, La.	56	38	9	5	3	1	1
Paterson, N.J.	6	4	-	2	-	-	1	Corpus Christi, Tex.	46	32	9	4	-	1	1
Philadelphia, Pa.	399	263	77	25	10	4	20	Dallas, Tex.	202	118	46	23	8	7	11
Pittsburgh, Pa.	36	24	9	-	1	2	3	El Paso, Tex.	81	58	13	7	3	-	4
Reading, Pa.	29	23	4	-	2	-	1	Ft. Worth, Tex.	94	68	17	7	1	1	2
Rochester, N.Y.	121	96	17	5	1	2	14	Houston, Tex.	341	192	62	39	35	13	26
Schenectady, N.Y.	31	26	5	-	-	-	4	Little Rock, Ark.	74	49	15	3	4	3	2
Scranton, Pa.	36	27	7	1	-	-	3	New Orleans, La.	U	U	U	U	U	U	U
Syracuse, N.Y.	156	122	23	6	2	3	19	San Antonio, Tex.	198	140	39	11	5	3	14
Trenton, N.J.	28	21	5	1	-	1	5	Shreveport, La.	65	46	11	4	1	5	5
Utica, N.Y.	22	15	6	-	1	-	2	Tulsa, Okla.	135	98	19	9	2	7	13
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	848	562	171	68	27	20	64
E.N. CENTRAL	2,126	1,451	426	141	45	61	137	Albuquerque, N.M.	U	U	U	U	U	U	U
Akron, Ohio	48	30	13	-	1	4	2	Boise, Idaho	34	26	6	1	-	1	2
Canton, Ohio	53	40	12	-	-	-	3	Boise, Idaho	34	26	6	1	-	1	2
Chicago, Ill.	406	254	82	34	12	22	31	Boise, Idaho	34	26	6	1	-	1	2
Cincinnati, Ohio	125	89	35	10	5	6	14	Boise, Idaho	34	26	6	1	-	1	2
Cleveland, Ohio	152	105	24	9	4	10	-	Boise, Idaho	34	26	6	1	-	1	2
Columbus, Ohio	213	141	46	16	9	2	21	Boise, Idaho	34	26	6	1	-	1	2
Dayton, Ohio	131	95	29	5	-	2	8	Boise, Idaho	34	26	6	1	-	1	2
Detroit, Mich.	212	134	55	21	-	2	13	Boise, Idaho	34	26	6	1	-	1	2
Evansville, Ind.	37	33	2	-	1	1	2	Boise, Idaho	34	26	6	1	-	1	2
Fort Wayne, Ind.	71	44	23	2	1	1	3	Boise, Idaho	34	26	6	1	-	1	2
Gary, Ind.	14	7	3	-	1	1	2	Boise, Idaho	34	26	6	1	-	1	2
Grand Rapids, Mich.	45	34	7	1	2	1	7	Boise, Idaho	34	26	6	1	-	1	2
Indianapolis, Ind.	174	120	37	10	4	3	9	Boise, Idaho	34	26	6	1	-	1	2
Lansing, Mich.	39	33	5	1	-	-	4	Boise, Idaho	34	26	6	1	-	1	2
Milwaukee, Wis.	118	87	16	12	1	2	8	Boise, Idaho	34	26	6	1	-	1	2
Peoria, Ill.	43	36	4	2	1	-	2	Boise, Idaho	34	26	6	1	-	1	2
Rockford, Ill.	59	41	6	5	3	-	4	Boise, Idaho	34	26	6	1	-	1	2
South Bend, Ind.	40	31	4	4	-	-	1	Boise, Idaho	34	26	6	1	-	1	2
Toledo, Ohio	81	57	17	5	-	2	2	Boise, Idaho	34	26	6	1	-	1	2
Youngstown, Ohio	69	60	7	2	-	-	2	Boise, Idaho	34	26	6	1	-	1	2
W.N. CENTRAL	686	496	132	27	20	10	42	Boise, Idaho	34	26	6	1	-	1	2
Des Moines, Iowa	U	U	U	U	U	U	U	Boise, Idaho	34	26	6	1	-	1	2
Duluth, Minn.	33	22	9	-	-	2	-	Boise, Idaho	34	26	6	1	-	1	2
Kansas City, Kans.	37	26	9	1	1	-	3	Boise, Idaho	34	26	6	1	-	1	2
Kansas City, Mo.	107	78	19	3	4	2	7	Boise, Idaho	34	26	6	1	-	1	2
Lincoln, Neb.	41	29	9	3	-	-	1	Boise, Idaho	34	26	6	1	-	1	2
Minneapolis, Minn.	154	116	28	5	5	-	9	Boise, Idaho	34	26	6	1	-	1	2
Omaha, Neb.	69	50	12	3	4	-	12	Boise, Idaho	34	26	6	1	-	1	2
St. Louis, Mo.	94	59	20	6	5	4	3	Boise, Idaho	34	26	6	1	-	1	2
St. Paul, Minn.	69	54	14	1	-	-	2	Boise, Idaho	34	26	6	1	-	1	2
Wichita, Kans.	82	62	12	5	1	2	6	Boise, Idaho	34	26	6	1	-	1	2

U: Unavailable. - : No reported cases.

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000.

A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

[†]Pneumonia and influenza.

[‡]Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

[§]Total includes unknown ages.

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